

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Appln. No.: 09/887,535

**REMARKS**

Claims 1-15 are all the claims pending in the application. By this Amendment, new claims 12-15 are added.

Claims 1-11 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Crinon (previously of record).

Applicant submits the following arguments to traverse the prior art rejections.

Applicant's invention relates to a decoder and the related method for digital image stabilization. One embodiment of Applicant's invention uses a decoder having a digital image stabilization function which includes, *inter alia*, a global motion computation unit for extracting a motion vector of a macro block unit and computing a global motion vector, and a time-based integration unit for extracting a frame type and integrating global motion vector based on the judgment generated according to the extracted frame type, and a global compensation unit for motion compensation and stabilization of an image.

Crinon relates to a method and the related device for segmenting foreground and background macroblocks (non-overlapping tiles) in images. An image taken at time t is divided into macroblocks, each of which is matched to image sample arrays in an image taken at time t-1 and is labeled as either foreground or background. If a macroblock is labeled as a foreground macroblock, the corresponding pixel array in the mosaic is warped forward but its contents are not changed. Col. 10, lines 8-10. If the macroblock is labeled as a background, the corresponding pixel array in the mosaic is forward warped and its contents are updated. Col. 10, lines 16-17.

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Examiner continues to contend that Crinon teaches each feature of claims 1 and 7.

Applicant respectfully submits that the Examiner's rejections are not supported for the following reasons.

Claims 1 and 7 describe a unit or a step for motion-compensating and stabilizing a recovery image using the global motion vector. Nowhere in Crinon is there any disclosure or teaching of a structure or a step for motion-compensating and stabilizing a recovery image using the global motion vector. Examiner contends that the global motion parameters are used to stabilize the video sequences generated by the video camera. Detailed Action, page 4, first paragraph. However, the global motion parameters are used by a warping operation, which compensates an image for a limited set of changes of camera, i.e. an identity, a translational, an affine and a perspective transformation. Col. 5, lines 26-50. Applicant submits that compensating an image for the changes of camera that are limited to an identity, a translational, an affine and a perspective transformation does not disclose or teach stabilizing an image.

Crinon fails to disclose or suggest judging whether the global motion vector is integrated according to the extracted frame type to generate a judgment, and integrating a global motion vector from the global motion computation unit based on the judgment, as recited in claims 1 and 7. Examiner cites fig. 7 as teaching extracting frame type and further states that the MB type in Crinon represents a frame type. While Crinon teaches assigning MB types to macroblocks, MB types are used to assist the foreground/background classification. Col. 7, line 64 to col. 8, line 51. Regardless of whether a macroblock is classified as foreground or background, the pixel array in the mosaic corresponding to that macroblock is forward warped, which means that the pixel array is compensated for the global motion of camera regardless of the types of the

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macroblock. Col. 10, lines 8-17 and col. 5, lines 37-50. By contrast, claims 1 and 7 describe, *inter alia*, a unit or a step for extracting a frame type from the additional information, judging whether the global motion vector is integrated according to the extracted frame type to generate a judgment, and integrating a global motion vector from the global motion computation unit *based on the judgment*. Therefore, the MB types in Crinon do not teach or suggest the frame type as described in claims 1 and 7.

Therefore, claims 1 and 7 are patentable for at least the above reasons and for the teachings in the specification of Crinon at column 5, lines 26-50; column 7, line 64 - col. 8, line 51; and column 10, lines 8-17. The remaining dependent claims 2-6 and 8-11 are patentable at least by virtue of their dependency.

Applicant adds new claims 12-15 to more particularly describe the invention. In addition to the features of their base claims which are missing from Crinon, Applicant submits that the cited reference fails to teach or suggest the features of claims 12-15.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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Respectfully submitted,



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